

CLAIMS:

1. A test page produced by ink pens for calibrating drop weights for at least a first and a second printheads, comprising:

a page with an area for color swatches;  
a plurality of color swatches disposed in said area; and  
a predetermined substantially uniform color background disposed in said area between and around said plurality of color swatches.

2. The test page as defined in claim 1, wherein said color swatches are of a substantially uniform size, and wherein a dimension of said color swatches is less than a distance in said area between adjacent color swatches.

3. The test page as defined in claim 2, wherein each of the plurality of color swatches are substantially square.

4. The test page as defined in claim 1, wherein said plurality of color swatches comprises 9-81 color swatches in the area, and wherein the area is substantially a square of 13 or less centimeters.

5. The test page as defined in claim 1, wherein the color swatches are formed from three different colors of ink.

6. The test page as defined in claim 1, wherein the background color is gray made from black ink.

7. The test page as defined in claim 1, wherein the test page includes a second plurality of color swatches disposed in a second area on the test page, wherein the first-mentioned plurality of color swatches are formed by holding one color ink constant across the swatches and varying two other color inks, and wherein the second plurality of color swatches are formed by holding a different color ink constant across the swatches as compared to the ink held constant in the first-mentioned plurality of color swatches and varying two other color inks.

8. The test page as defined in claim 1, wherein a center color swatch disposed in substantially a center of the area containing the plurality of color swatches provides a

094300 00000000

color from a current setting of ink pens, and wherein a variation of ink drop volumes in a given color swatch relative to ink drop volumes in the center color swatch is dependent on a distance and direction of the given color swatch relative to the center color swatch.

9. A method for calibrating color pens for an inkjet printer that includes one or more first printheads and one or more second printheads, comprising the steps of:

printing a test page from the inkjet printer to be calibrated, wherein the test page comprises a plurality of color swatches disposed in an area, wherein each of the plurality of color swatches is made from inks from the one or more first printheads, and wherein a predetermined substantially uniform color background made from at least one ink from said one or more second printheads is disposed in said area between and around said plurality of color swatches; and

selecting a color swatch which matches the closest to the color background.

10. The method as defined in claim 9, wherein said color swatches are of a substantially uniform size, and wherein a dimension of said color swatches is less than a distance in said area between adjacent color swatches.

11. The method as defined in claim 10, wherein each of the plurality of color swatches is substantially square.

12. The method as defined in claim 9, wherein said plurality of color swatches comprises 9-81 color swatches in the area, and wherein the area is substantially a square of 13 or less centimeters.

13. The method as defined in claim 9, wherein the background color is gray made from black ink.

14. The method as defined in claim 9, wherein the selecting step is performed automatically by a sensor sensing the spectral data of each of a plurality of the color swatches to the background color, and the step of determining which color swatch has spectral data which is closest to the background color.

15. The method as defined in claim 9, wherein the selecting step is performed manually.

16. The method as defined in claim 14, wherein the test page includes a second plurality of color swatches disposed in a second area on the test page, wherein the first-mentioned plurality of color swatches are formed by holding one color ink constant across the swatches and varying two other color inks, and wherein the second plurality of color swatches are formed by holding a different color ink constant across the swatches as compared ink held constant in the first-mentioned plurality of color swatches and varying two other color inks; wherein the sensing step comprises sensing spectral data for a plurality color swatches in the second plurality; and wherein the comparing step compares the sensed spectral data for each color swatch in the second plurality of the color swatches to spectral data for the background color in the second area and selects one of the plurality of color swatches in the second plurality of color swatches which has spectral data which is closest to the background color in the second area.

17. The method as defined in claim 9, wherein a center color swatch disposed in substantially a center of the area containing the plurality of color swatches provides a color from a current setting of ink pens, and wherein a variation of ink drop volumes in a given color swatch relative to ink drop volumes in the center color swatch is dependent on a distance and direction of the given color swatch relative to the center color swatch.

18. A system for calibrating color pens for an inkjet printer that includes one or more first printheads and one or more second printheads, comprising:

a test page with an area for color swatches, with a plurality of color swatches disposed in said area, and a predetermined substantially uniform color background disposed in said area between and around said plurality of color swatches; and

a sensor for sensing spectral data for each color swatch in a plurality of color swatches; and

a component for comparing the sensed spectral data for each color swatch in a plurality of the color swatches to spectral data for the background color and selecting one of the plurality of color swatches which has spectral data which is closest to the background color for use in adjusting ink volume for at least one of the ink pens.

19. The system as defined in claim 18, wherein said color swatches are of a substantially uniform size, and wherein a dimension of said color swatches is less than a distance in said area between adjacent color swatches.

20. The system as defined in claim 18, wherein the test page includes a second plurality of color swatches disposed in a second area on the test page, wherein the first-mentioned plurality of color swatches are formed by holding one color ink constant across the swatches and varying two other color inks, and wherein the second plurality of color swatches are formed by holding a different color ink constant across the swatches as compared to the ink held constant in the first-mentioned plurality of color swatches and varying two other color inks; wherein the sensor senses spectral data for a plurality color swatches in the second plurality; and wherein the component for comparison and selection compares the sensed spectral data for each color swatch in the second plurality of the color swatches to spectral data for the background color in the second area and selects one of the plurality of color swatches in the second plurality of color swatches which has spectral data which is closest to the background color in the second area for use in adjusting ink volume for at least one of the ink pens.

21. The system as defined in claim 18, wherein each of the plurality of color swatches is made from ink from the one or more first printheads, and wherein the color background is made from an ink from said one or more second printheads and

22. The system as defined in claim 18, wherein a center color swatch disposed in substantially a center of the area containing the plurality of color swatches provides a color from a current setting of ink pens, and wherein a variation of ink drop volumes in a given color swatch relative to ink drop volumes in the center color swatch is dependent on a distance and direction of the given color swatch relative to the center color swatch.